Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 9, with the following rewritten paragraph:

Acrylamide and its analogues can be formed by heating of biological material derived from plant tissues. This compound, identified long ago as a potential industrial hazard, has now been found in many cooked foods (Tareke, E., Rydberg, P., Karlsson, P., Eriksson, S. & Törnqvist, M. (2000), *Acrylamide: A cooking carcinogen?*, Chemical Research in Toxicology, 13, 517-522)~~Tareke, Rydberg, Karlsson, Eriksson, & Törnqvist, 2000; Tareke, Rydberg, Karlsson, Eriksson, & Törnqvist, 2002~~). The identification of acrylamide in heated foodstuffs originated with the discovery of the presence of acrylamide-hemoglobin adducts in blood of rats which were fed fried standard feed (Bergmark, E, Calleman, C.J., He, F.S., & Costa, L.G. 1993, *Determination of hemoglobin adducts in humans occupationally exposed to acrylamide* (pp. 45-54) Toxicology and Applied Pharmacology, Vol. 120.1),~~Calleman, He & Costa, 1993~~). This led to the investigation on the effect of heating (frying etc.) on the content of acrylamide in different foodstuffs (Rosen, J., & Helenas, K.E. (2002) *Analysis of acrylamide in cooked foods by liquid chromatography tandem mass spectrometry,* Analyst, 127, 880-882)~~Rosen & Hellenas, 2002~~).

Please replace the paragraph beginning at page 1, line 18, with the following rewritten paragraph:

Reports of the presence of acrylamide in a range of fried and oven-cooked foods have caused worldwide concern because of its probable carcinogenicity in humans. Extensive studies (Lijinsky, W. & Andrews, A.W. (1981), *Mutagenicity of vinyl compounds in Salmonella ryplamasam, Terotogen Carcinogen Mutagen, 1, 259-267)*~~& Andrews, 1981; Friedman, Dulak, & Stedham, 1995~~) have been done on acrylamide on its mutagenicity and carcinogenicity in bacterial, animal and human systems. The compound was found to be a weak inducer of SV 40 DNA amplification and potentiated the genotoxicity of chemical carcinogens (Spencer, P.S. & Schaumburg, H.H. (1974b), IA review of acrylamide neurotoxicity, Part H., Experimental animal neurotoxicity and pathogenic mechanisms, *Canadian Journal of Neurological Sciences, 1, 152-169)*~~& Schaumburg, 1974b~~). It was shown to produce skin and lung cancers in mice models

(Hashimoto, K. & Tanii, H. (1985) *Mutagenicity of acrylamide and its analogues in Salmonella typhinsarcoma,* Mutagen Research, 158, 129-133); Vanhoric, M. & Moens, W. (1983), *Cardinogen mediated indication of SV40 DNA amplification is enhanced by acrylamide in Chinese hamster CO60 cells,* Carcinogenesis, 4, 1459-1463) ~~& Tanii, 1985; Vanhoric & Moens, 1983~~). Acrylamide is known to produce neuropathy in both human and experimental animals (Bull, R.J., Robinson, M. Laurie, R.D., & Strober, J. (1984a), *Carcinogenic activity of acrylamide in the skin and lung of Swiss ICR mice,* Cancer Letters, 24, 209-212) ~~*et al.*, 1984; Bull, Robinson, Laurie & Strober, 1984;~~; Ko, M.H., Chen, W.P., Lin-Shiau, S.Y., & Hsieh, S.T., (1999), *Age-dependent acrylomide neurotoxicity in mice: morphology, physiology and function.,* Experimental Neurology, 158 (pp. 37-46); Madrid, R.G., Ohnishi, A., Hachisuka, K., & Murai, Y., (1993), *Axonal sprouting of motor nerve in acrylamide-intoxicated rats with progressive weakness,* Environmental Research, 60(2), 233-241; Chapin, *et al.* (1995). *The reporductive and neural toxicities of acrylamide and three analogues in swiss mice evaluated using the continuous breeding protocol,* Fundamental and Applied Toxicology, 27(I), 9-24; Lehning, E.J., Persaud, A., Dyer, K.R., Jortner, B.S., & LoPachin, R.M. (1998). *Biochemical and morphologic characterization of acrylamide peripheral neuropathy.* Toxicology and Applied Pharmacology 15(2) 211-221) ~~Ko, Chen, Lin Shiau & Hsieh, 1999; Madrid, Ohnishi, Hachisuka, & Murai, 1993; Chapin, *et al.*, 1995; Lehning, Persaud, Dyer, Jortner & LoPachin, 1998~~) and some of its analogues have been shown to cause testicular damage as well as neurotoxicity in experimental animals (Hashimoto, K., Sakamoto, J., & Tanii, H. (1981). *Neurotoxicity of acrylamide and related compunds and their effects on male gonads in mice.* Archives of Toxicology, 47, 179-189) ~~, Sakamoto & Tanii, 1981~~).

Please replace the paragraph beginning at page 2, line 1, with the following rewritten paragraph:

Potato and processed potato products are widely consumed foods and their production constitute some of the largest food processing industries in the Western Hemisphere. The discovery of the formation of potentially carcinogenic acrylamide in starch foods poses a significant public-health and economic risk for the society. A recent study undertaken by two research groups independently have concluded that acrylamide was formed when certain amino

acids and sugars were heated beyond 120°C (Mottram D. S., Wedzicha B. L. & Dodson A. T, (2002). *Acrylamide is formed in the Maillard reaction.* Nature, 419, 448-449; Stadler, R.H., Blank, I., Varga, N., Robert, E., Han, J., Guy, P.A., Robert, M.C. & Riediker, S. (2002). *Acrylamide from Maillard reaction products,* Nature, 419, 449-450).~~2002; Stadler R. H., *et al.* 2002).~~ The problem of complete extraction of acrylamide from potato chips was recently investigated. Pedersen JR, *et al.*, Analyst. 2003 Apr;128(4):332.